

## Internal Revenue Service

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Date:  
November 12, 2014

### LEGEND

Taxpayer =  
Company A =  
Company B =  
Company C =  
Developer =  
Licensor =  
Sub =  
Parent =  
State A =  
State B =  
Year =  
Power Plant =  
Location 1 =  
Location 2 =  
Date 1 =  
Date 2 =  
Date 3 =  
Additive 1 =  
Additive 2 =  
Unit A =  
Unit B =  
a =  
b =  
c =  
d =  
e =  
f =  
Research Center =  
  
Test Report A =  
Test Report B =

Dear \_\_\_\_\_ :

This letter is in response to your request for rulings, submitted by your authorized representative on Date 3, concerning the federal income tax consequences of the transaction described below.

## FACTS

Taxpayer represents the facts as follows:

### Taxpayer Information

Taxpayer is a State A limited liability company treated as a partnership for federal income tax purposes. Taxpayer was formed in Year to own, manage, and operate a number of refined coal ventures in cooperation with strategic partners.

Company A is a State A limited liability company treated as a partnership for federal income tax purposes that is owned a percent by Taxpayer and b percent by Licensor. Company A was formed by Developer to own the refined coal facility (Facility) located at an electric utility generating station (Power Plant) owned by Company B in Location 1. The Facility uses clean coal technology licensed from Company C (Technology) to reduce air emissions from burning coal (primarily nitrogen oxide (NO<sub>x</sub>), mercury (Hg), and metals). Company A produces refined coal at the Facility and sells the refined coal to Company B to fuel the Power Plant.

Developer is a State B limited liability company treated as a partnership for federal income tax purposes that acts as the manager of Taxpayer. Developer designed, engineered, and constructed seven refined coal facilities to utilize the Technology, including the Facility.

Licensor is a State B limited liability company treated as a partnership for federal income tax purposes. Licensor is the owner of the Technology license for the Facility and assigned use of that license to Company A.

Sub is a State A corporation treated as a corporation for federal income tax purposes that is a wholly-owned subsidiary of Parent. Parent is an investor in and member of Company C, owner and developer of the Technology.

On Date 2, Developer sold a a percent membership interest in Taxpayer to Sub. After the transaction, Taxpayer is owned by Sub as a a percent member, and by Developer, as a b percent member and manager.

### The Refined Coal Facility

The Facility was originally placed in service by Developer at the Power Plant on Date 1. The Facility has continually operated at the Power Plant since it was placed in service and has never been removed or relocated from the Power Plant. Developer installed chemicals storage facilities adjacent to the Power Plant that are also owned by Company A.

The Facility consists of two refined coal mixer units, Unit A and Unit B, which receive utility-grade coal at the Power Plant and thoroughly blend the coal with the Technology. Unit A produces refined coal for a cyclone boiler in the Power Plant, and Unit B produces refined coal for a circulating fluidized bed boiler in the Power Plant. The basic design of each mixer unit within the Facility is as follows:

- 1) Coal and the Technology additives are fed into a blend chamber at the end of a coal belt conveyor where there is sufficient elevation to allow the coal mixture (feedstock coal plus chemicals) to enter the top of the blend chamber.
- 2) The Technology additives are metered onto the coal while the coal is in a suspended state as it enters the chamber. At this point, the coal is in a thin layer which assists in assuring uniform blending of the separate components. The momentum of the falling thin layer of coal, now containing the additives, propels the mixture into an impact plate in the blend chamber, creating a violent action that instantaneously comingles the chemicals and coal. The impact of the comingled mixture changes the direction of the flow and directs the mixture down further into the chamber.
- 3) At this point the mixture is then struck by paddles (generally rectangular pieces of hardened steel) attached to a drum which rotates continually inside the chamber to provide further blending.
- 4) The drum rotation channels the mixture to the bottom opening of the chamber onto a screen and conveyor below the chamber where the product is further sized as necessary and then conveyed to bunkers that feed the Power Plant steam boilers.

### The Technology

The Technology is a patented process for injection of two chemical sorbents to modify utility-grade coal. The two chemical additives are Additive 1 and Additive 2. These additives reduce emissions of NO<sub>x</sub>, mercury (Hg), and other metals when mixed

with the coal at the proper ratios prior to combustion in a boiler furnace.

The Technology provides the chemical structure to create a “ceramic matrix” using chemical bonds to capture emissions of regulated pollutants. The matrix has a certain structure of chemicals in certain positions. At the interior corners of the matrix, the structure will pick up and hold pollutants such as mercury (Hg), arsenic (As), or lead (Pb). The structure also picks up and includes elements such as oxygen, chlorides and fluorides, which are freely available in a boiler’s gas stream when they have been released from the coal during combustion but become locked up in the ceramic matrix. As the gas stream starts to cool, the chemical bonds form into a very strong matrix. Because the matrix was created under extremely high temperatures, it can only be broken at similar temperatures.

When coal is burned, mercury (Hg) and many other metals are vaporized in the combustion process and are emitted into the atmosphere with the flue gas. The Technology captures mercury (Hg) and other metals in the coal ash, thereby eliminating them from the flue gas before the flue gas exits the boiler stack. The mercury (Hg) and other metals instead remain entrapped into the ash in a non-leachable form for safe disposal.

Also, coal combustion produces  $\text{NO}_x$  as the fuel is burned under oxidizing conditions. The levels of  $\text{NO}_x$  produced are a function of many factors including excess air, fuel nitrogen content, flame temperature, burner configuration, and combustion air staging. Nitrogen oxides can also be affected by ambient air temperatures. The Technology provides  $\text{NO}_x$  reductions via several mechanisms, which include a slight reduction of flame temperature, adsorption of  $\text{NO}_x$  species, and chemical capturing of  $\text{NO}_x$  species. The primary mechanism appears to involve adsorption and capture of  $\text{NO}_x$  species within the altered fly ash. This results in a significant reduction in the  $\text{NO}_x$  species that are released into the air.

### Emissions Reduction Testing

The feedstock coal used in the Facility (Tested Coal) was tested at the Research Center. The Research Center is a high-tech, nonprofit branch of a prominent university that is widely recognized as a leader in developing cleaner, more efficient energy and environmental technologies for preservation of natural resources such as air, soil, and water.

Both Unit A and Unit B of the Facility refine bituminous coal from different suppliers in the Location 2 region, including newly mined coal and coal fines recovered from State B coal wash plants. Given that this coal is all from the Location 2 region, it is of the same source or rank as the Tested Coal even though the coal may come from other mines or wash sites.

The Research Center conducted a series of pilot-scale tests of the Tested Coal in the Center's combustion test facility (CTF). The Research Center's CTF has been extensively used to research and investigate SO<sub>x</sub> and NO<sub>x</sub> emissions, and the transformation of toxic trace metals (mercury (Hg), arsenic (As), and lead (Pb)) during the combustion of coal and other fuels. The CTF is capable of producing gas and particulate samples representative of those produced in industrial and full-scale pulverized coal-fired boilers, and for testing purposes the facility firing rate may be set based on a target furnace exit gas temperature simulating the operating parameters of a specific boiler.

Separate tests were conducted for the Tested Coal refined by Unit A and Unit B of the Facility to accurately replicate the boilers supplied with refined coal from these units. The Tested Coal used in the CTF was considered comparable to coal used at the Facility to produce refined coal. In each case, the Research Center divided the Tested Coal into separate untreated samples and samples treated with the Technology additives at a specified rate.

The Tested Coal for Unit A was analyzed in the Research Center's CTF designed to replicate the combustion of a cyclone boiler, which is the boiler type supplied by Unit A of the Facility. Test Report A, drafted by the Research Center based on tests conducted on Unit A using the Tested Coal, explains that combustion gas analysis is provided by continuous emissions monitors (CEMs) at two locations: the furnace exit, which is used to monitor and maintain a specified excess air level for all test periods, and the outlet of the particulate control device, which is used to assess any air in-leakage that may have occurred so that emissions of interest sampled at the back end of the system can be corrected for the dilution caused by the in-leakage. Flue gas analyses were obtained from the duct at the outlet of the electrostatic precipitator (ESP). Flue gas mercury (Hg) measurements were obtained separately by a continuous mercury (Hg) monitor (CMM) located at the flue gas ducting at the exit of the particulate control device. The Research Center conducted a series of tests on the Tested Coal and refined coal blends, measuring the emissions with these devices. The combustion of the Tested Coal after treatment with the Technology (*i.e.*, refined coal) resulted in the following reductions in NO<sub>x</sub> and mercury (Hg) emissions:

Nitrogen Oxides (NO <sub>x</sub> ) Reduction:	<u>c</u> percent
Mercury (Hg) Reduction:	<u>d</u> percent

The Tested Coal for Unit B was analyzed in the Research Center's CTF designed to replicate the combustion of a fluidized bed combustor, which is the boiler type supplied by Unit B of the Facility. Test Report B, drafted by the Research Center based on tests conducted on Unit B using the Tested Coal, explains that combustion gas analysis is provided by continuous emissions monitors (CEMs) used to measure flue gases, including NO<sub>x</sub>, SO<sub>2</sub>, O<sub>2</sub> and CO<sub>2</sub> simultaneously at the baghouse outlet and the primary cyclone outlet. All gas analyses were continuously monitored and recorded

by a data acquisition system. The data from the primary cyclone location were recorded remotely with computer hardware and software specially designed for this purpose. The baghouse exit analyzers, as well as all other temperatures, pressures, and flows reported were also measured using specially designed software and hardware devices. Continuous mercury (Hg) monitors (CMMs) were used to measure mercury (Hg) concentrations at the baghouse inlet and outlet. The combustion of the Tested Coal after treatment with the Technology (*i.e.*, refined coal) resulted in the following reductions in NO<sub>x</sub> and mercury (Hg) emissions:

Nitrogen Oxides (NO <sub>x</sub> ) Reduction:	<u>  </u> percent
Mercury (Hg) Reduction:	<u>  </u> percent

Taxpayer desires to rely on pilot-scale testing, such as the CTF, because Taxpayer believes it is an accurate methodology of scientifically comparing the emissions from untreated feedstock coal with the emissions from refined coal treated with the Technology under consistent baseline operating conditions. Taxpayer perceives the pilot-scale test to be more reliable than monitoring systems employed at the Power Plant because of uncontrolled variables at the Power Plant and the inability to insure that consistent baseline conditions are established for both the burning of untreated feedstock coal and refined coal.

In addition, Taxpayer has the ability to measure the sulfur (S) and mercury (Hg) content of the feedstock coal through laboratory testing. The feedstock coal is shipped via rail and truck to the Power Plant. The coal delivered to the Power Plant is sampled and can be tested to determine its sulfur (S) and mercury (Hg) content when it is added to a coal stock pile at the Power Plant. Thereafter, Taxpayer purchases coal from the stock pile, processes this feedstock coal into refined coal, and sells the refined coal to Company B.

Taxpayer also receives reports of the sulfur (S) and mercury (Hg) content of the chemical additives that are applied to the feedstock coal. Therefore, Taxpayer may elect to implement procedures for laboratory testing to determine the sulfur (S) and mercury (Hg) content of the refined coal. These procedures could involve extrapolation from the sulfur (S) and mercury (Hg) content of each constituent component of the refined coal or testing the refined coal in a lab separately to reliably determine the sulfur (S) and mercury (Hg) content of the refined coal. Accordingly, Taxpayer could employ such lab testing procedures to assess the average content of sulfur (S) and mercury (Hg) in the feedstock coal and refined coal in lieu of pilot-scale testing at the Research Center.

Taxpayer will continue to conduct pilot-scale tests at the Research Center or similar reputable testing centers within every six (6) month period of Facility operations for Unit A and Unit B of the Facility unless Taxpayer determines that the analysis of the feedstock coal and refined coal used for a given six (6) month period indicates that the

sulfur (S) and mercury (Hg) content of both the feedstock coal and the refined coal have not changed on average by more than ten percent (10%) (plus or minus) from the Tested Coal in the most recent pilot-scale test. Further, while Taxpayer intends to schedule pilot-scale tests in compliance with the foregoing, the Research Center may not always deliver a written report of its CTF test before the expiration of each six (6) month date, due to the Research Center's internal procedures for review and processing of its reports. In such cases, the Research Center has agreed that it will provide confirmation (generally via email) verifying the results of its CTF testing and will thereafter deliver the detailed written report upon its completion. Despite the fact that the final report may be received after a given six (6) month period, Taxpayer intends to have the actual pilot-scale tests completed and obtain the results of tests within each applicable six (6) month period which will be properly certified by a qualified professional engineer at the Research Center.

#### RULINGS REQUESTED

- 1) The refined coal produced by the Facility constitutes "refined coal" within the meaning of § 45(c)(7) of the Code and may qualify for credit under § 45(e)(8) upon its sale to "unrelated persons" as defined in § 45(e)(4), provided the refined coal is produced from feedstock coal that is the same source or rank as the "Tested Coal" and provided further that the refined coal satisfies the qualified emission reduction test stated in § 45(c)(7)(B).
- 2) Provided that the feedstock coals used to produce refined coal during any determination period are from the same coal source region and are of the same rank as the Tested Coal, all feedstock coals that satisfy that criteria shall be treated as feedstock coal of the same source and rank for purposes of section 6.04 of Notice 2010-54, even though the coals may be from different mines in the region.
- 3) Testing by the Research Center for qualified emissions reduction as set forth in its test report satisfies the requirements of Notice 2010-54. Taxpayer may rely on the pilot-scale testing conducted at the Research Center to satisfy the qualified emission reduction test of § 45(c)(7)(B), regardless of subsequent normal fluctuations in operating conditions and emissions at the Power Plant.
- 4) As an alternative to pilot-scale testing every six (6) months, Taxpayer is permitted to implement testing procedures to satisfy the redetermination requirement of section 6.04 of Notice 2010-54 by laboratory analysis establishing that the sulfur (S) and mercury (Hg) content of the feedstock coal and refined coal, on average, do not vary by more than ten percent (10%) from the sulfur (S) and mercury (Hg) content of the feedstock coal and the refined coal used in the most recent determination, in accordance with section 6.04(2)(b) of the Notice.

- 5) A change in ownership of the Facility subsequent to its placed-in-service date will not affect the placed-in-service date of the Facility for purposes of § 45.

## LAW AND RATIONALE

### Process and Testing of Refined Coal

Section 45(a) of the Code generally provides a credit against federal income tax for the use of renewable or alternative resources to produce electricity or fuel for the generation of steam. Section 45(e)(8) provides that, in the case of a producer of “refined coal”, the credit available under § 45(a) for any taxable year shall be increased by an amount equal to \$4.375 per ton of qualified “refined coal” (i) produced by the taxpayer at a “refined coal production facility” during the 10-year period beginning on the date that the facility was originally placed in service, and which is (ii) sold by the taxpayer to an unrelated person during such 10-year period and such taxable year.

For purposes of § 45 of the Code, section 3.01 of Notice 2010-54 provides that the term “refined coal” means a fuel which - (i) is a liquid, gaseous, or solid fuel (including feedstock coal mixed with an additive or additives) produced from coal (including lignite) or high carbon fly ash, including such fuel used as a feedstock; (ii) is sold by the taxpayer to an unrelated person with the reasonable expectation that it will be used for purpose of producing steam; and (iii) is certified by the taxpayer as resulting (when used in the production of steam) in a qualified emission reduction. Section 3.04 of the Notice provides that the term “qualified emission reduction” means (1) in the case of refined coal produced at a facility placed in service after December 31, 2008, a reduction of at least twenty percent (20%) of the emissions of nitrogen oxide (NO<sub>x</sub>) and at least forty percent (40%) of the emissions of either sulfur dioxide (SO<sub>2</sub>) or mercury (Hg) released when burning the refined coal (excluding any dilution caused by materials combined or added during the production process), as compared to the emissions released when burning the feedstock coal or comparable coal predominantly available in the marketplace as of January 1, 2003; and (2) in the case of production at a facility placed in service before January 1, 2009, a reduction of at least twenty percent (20%) of the emissions of NO<sub>x</sub> and at least twenty percent (20%) of the emissions of either SO<sub>2</sub> or mercury (Hg) released when burning the refined coal (excluding any dilution caused by materials combined or added during the production process), as compared to the emissions released when burning the feedstock coal or comparable coal predominantly available in the marketplace as of January 1, 2003.

Section 6.01 of Notice 2010-54 generally provides that a qualified emissions reduction does not include any reduction attributable to mining processes or processes that would be treated as mining (as defined in §§ 613(c)(2), (3), (4)(A), (4)(C), or (4)(I)) if performed by the mine owner or operator. Accordingly, in determining whether a



qualified emission reduction has been achieved, the emissions released when burning the refined coal must be compared to the emissions that would be released when burning the feedstock coal. Feedstock coal is the product resulting from processes that are treated as mining and are actually applied by a taxpayer in any part of the taxpayer's process of producing refined coal from coal.

Section 613(c)(5) of the Code describes treatment processes that are not considered as mining unless they are provided for in § 613(c)(4) or any necessary or incidental to a process provided for in § 613(c)(4). Any cleaning process, such as a process that uses ash separation, dewatering, scrubbing through a centrifugal pump, spiral concentration, gravity concentration, flotation, application of liquid hydrocarbons or alcohol to the surface of the fuel particles or to the feed slurry provided such cleaning does not change the physical or chemical structure of the coal, and drying to removed free water, provided such drying does not change the physical or chemical identity of the coal, will be considered as mining.

Section 6.03(1) of the Notice provides, in part, that emissions reduction may be determined using continuous emission monitoring system (CEMS) field testing. Section 6.03(1)(a) provides, in part, that CEMS field testing is testing that meets all the following requirements: (i) the boiler used to conduct the test is coal-fired and steam-producing and is of a size and type commonly used in commercial operations; (ii) emissions are measured using a CEMS; (iii) if EPA has promulgated a performance standard that applies at the time of the test to the pollutant emission being measured, the CEMS must conform to that standard; (iv) emissions for both the feedstock coal and the refined coal are measured at the same operating conditions and over a period of at least 3 hours during which the boiler is operating at a steady state at least ninety percent (90%) of full load; and (v) a qualified individual verifies the test results in a manner that satisfies the requirement of section 6.03(1)(b).

Section 6.03(2) of the Notice provides that methods other than CEMS field testing may be used to determine the emissions reduction. If a method other than CEMS field testing is used, the Service may require the taxpayer to provide additional proof that the emission reduction has been achieved. The permissible methods include: (a) testing using a demonstration pilot-scale combustion furnace if it established that the method accurately measures the emission reduction that would be achieved in a boiler described in section 6.03(1)(a)(i) and a qualified individual verifies the test results in a manner that satisfies the requirements of section 6.03(1)(c)(i), (ii), (v), and (vi) of the Notice; and (b) a laboratory analysis of the feedstock coal and the refined coal that complies with a currently applicable EPA or ASTM standard and is permitted under section 6.03(2)(b)(i) or (ii).

Section 6.04(1) of the Notice provides that a taxpayer may establish that a qualified emission reduction determined under section 6.03 applies to production from a facility by a determination or redetermination that is valid at the time the production

occurs. A determination or redetermination is valid for the period beginning on the date of the determination or redetermination and ending with the occurrence of the earliest of the following events: (i) the lapse of six (6) months from the date of such determination or redetermination; (ii) a change in the source or rank of feedstock coal that occurs after the date of such determination; or (iii) a change in the process of producing refined coal from the feedstock coal that occurs after the date of such determination or redetermination.

Section 6.04(2) of the Notice provides that in the case of a redetermination required because of a change in the process of producing refined coal from the feedstock coal, the redetermination required under section 6.04 must use a method that meets the requirements of section 6.03. In any other case, the redetermination requirement may be satisfied by laboratory analysis establishing that - (a) the sulfur (S) or mercury (Hg) content of the amount of refined coal necessary to produce an amount of useful energy has been reduced by at least twenty percent (20%) (forty percent (40%), in the case of facilities placed in service after December 31, 2008) in comparison to the sulfur (S) or mercury (Hg) content of the amount of feedstock coal necessary to produce the same amount of useful energy, excluding any dilution caused by materials combined or added during the production process; or (b) the sulfur (S) and mercury (Hg) content of both the feedstock coal and the refined coal do not vary by more than ten percent (10%) from the sulfur (S) and mercury (Hg) content of the feedstock coal and refined coal used in the most recent determination that meets the requirements of section 6.03 of the Notice.

Section 6.05 of the Notice provides that the certification requirement of section 3.01(1)(c) of the Notice is satisfied with respect to fuel for which the refined coal credit is claimed only if the taxpayer attached to its tax return on which the credit is claimed a certification that contains the following: (1) a statement that the fuel will result in a qualified emissions reduction when used in the production of steam; (2) a statement indicating whether CEMS field testing was used to determine the emissions reduction; (3) if CEMS field testing was not used to determine the emissions reduction, a description of the method used; (4) a statement that the emissions reduction was determined or redetermined within the six (6) months preceding the production of the fuel and that there have been no changes in the source or rank of feedstock coal used or in the process of producing refined coal from the feedstock coal since the emissions reduction was determined or was most recently determined; and (5) a declaration signed by the taxpayer in the following form: "Under penalties of perjury, I declare that I have examined this certification and to the best of my knowledge and belief, it is true, correct, and complete."

Finally, section 45(d)(8) of the Code provides that a refined coal production facility must be placed in service within certain timeframes. For purposes of the refined coal credit allowable with respect to refined coal other than steel industry fuel, the facility must be placed in service after October 22, 2004 and before January 1, 2012.

Section 3.07 of the Notice provides that the year in which property is placed in service is determined under the principles of § 1.46-3(d) of the regulations; *i.e.*, when the property is placed in a condition or state of readiness and availability for a specifically assigned function.

Section 5.02 of the Notice provides that a refined coal production facility will not be treated as placed in service after October 22, 2004 if more than twenty percent (20%) of the facility's total value (the cost of the new property plus the value of the used property) is attributable to property placed in service on or before October 22, 2004. The Notice also states that the IRS will not issue private letter rulings relating to when a refined coal production facility has been placed in service.

With respect to the first issue, the Facility uses a process, which involves the application of two chemical additives added to the feedstock coal prior to its combustion in a furnace. The additives provide the chemical structure that result in the reduction of emissions from NO<sub>x</sub> and mercury during combustion. Section 6.01 of the Notice provides generally that a qualified emission reduction does not include any reduction attributable to mining processes or processes that would be treated as mining, as further defined in the Code, if performed by the mine owner or operator. Section 613(c)(5) describes certain treatment processes that are not considered as mining unless they are provided for in § 613(c)(4) or are necessary or incidental to a process provided for in § 613(c)(4). For example, section 6.01(2) of the Notice provides, in part, that any cleaning process such as the application of liquid hydrocarbons or alcohol to the surface of the fuel particle or to the feed slurry, provided such cleaning does not change the physical or chemical structure of the coal, will be considered mining.

In the instant case, the process is not a mining process. Further, section 3.01 of the Notice clarifies § 45(c)(7) and specifically provides that refined coal includes feedstock coal mixed with an additive or additives. Thus, additive processes which mix certain chemicals or other additives with the coal in order to achieve emission reductions may qualify for the production tax credit for refined coal. Additionally, section 3.03 of the Notice defines comparable coal as coal that is of the same rank as the feedstock coal and that has an emissions profile comparable to the emissions profile of the feedstock coal. Accordingly, we conclude that the refined coal produced by the Facility constitutes "refined coal" within the meaning of § 45(c)(7) and may qualify for credit under § 45(e)(8) upon its sale to "unrelated persons" as defined in § 45(e)(4), provided the refined coal is produced from feedstock coal that is the same source or rank as the Tested Coal and provided further that the refined coal satisfies the qualified emission reduction test stated in § 45(c)(7)(B).

With respect to the second issue, the emissions profile of the refined coal product is compared to the emissions profile of either the feedstock coal or a comparable coal predominantly available in the market place as of January 1, 2003. Section 3.03 of the Notice provides that a "comparable coal" is defined as coal that is of the same rank as

the feedstock coal and that has an emissions profile comparable to the emissions profile of the feedstock coal. Section 6.04 of the Notice provides that a determination or redetermination of a qualified emissions reduction is valid until the occurrence of the earliest of the following events: (i) six (6) months have passed since the date of such determination or redetermination; (ii) a change in the source or rank of feedstock coal that occurs after the date of such determination or redetermination; or (iii) a change in the process of producing refined coal that occurs after the date of such determination or redetermination.

In this case, Taxpayer currently purchases all of its coal from mines and wash plant sites in the Location 2 region and the Location 2 region coal is of the same source and rank. Accordingly, we conclude that provided that the feedstock coals used to produce refined coal during any determination period are from the same coal source region and are of the same rank as the Tested Coal, all feedstock coals that satisfy that criteria shall be treated as feedstock coal of the same source and rank for purposes of section 6.04 of Notice 2010-54, regardless of the mine or wash plant site from which such feedstock coal is purchased.

With respect to the third and fourth issues, section 6.03(3) of the Notice provides that any permissible testing method provided for section 6.03 of the Notice can be used in emission testing for any pollutant. That is, a taxpayer can use different testing methods for each of NO<sub>x</sub>, SO<sub>2</sub> or mercury (Hg), provided the method used for any pollutant is a permissible method. Section 6.04(1) provides that an emission test establishing a “qualified emission reduction” qualifies the refined coal for a six (6) month period provided there is no change in the process for producing the refined coal or in the source or rank of the feedstock coal. Therefore, a taxpayer must “redetermine” the emission reductions to qualify for the succeeding six (6) month period using one or more approved methods. Section 6.04(2) provides that in the context of “redetermination” that the redetermination requirement may be satisfied by laboratory analysis establishing either that (i) the sulfur (S) or mercury (Hg) content of the amount of refined coal necessary to produce an amount of useful energy has been reduced by at least twenty percent (20%) (forty percent (40%), in the case of facilities placed in service after December 31, 2008) in comparison to the sulfur (S) or mercury (Hg) content of the amount of useful thermal energy, excluding any dilution used by materials combined or added during the production process; or (ii) the sulfur (S) and mercury (Hg) content of both the feedstock coal and the refined coal do not vary by more than ten percent (10%) from the sulfur (S) and mercury (Hg) content of the feedstock coal and refined coal used in the most recent determination that meets the requirements of the testing methods for emissions reductions in section 6.03 of the Notice.

In the instant case, Taxpayer engaged the Research Center to conduct tests at its CTF to determine the emission reductions associated with burning the refined coal product compared to the feedstock, which is a permissible method under section 6.04 of the Notice. For purposes of qualifying the refined coal produced at the Facility, the

Research Center conducted pilot-scale combustion tests at its CTF on feedstock coal burned at the Power Plant as detailed in its Test Report A (results of testing Unit A) and Test Report B (results of testing Unit B) (collectively the Test Reports). The Research Center mixed the coal and additives in a manner consistent with the mixing that would occur at the Facility. In the Test Reports, the Research Center conducted tests on feedstock and refined coal product samples collected from and produced by the Facility. In the Test Reports, the Research Center reported that the test results indicated that the blend of coal and additives achieved the required emissions reductions. The results detailed in the Test Reports indicated that the refined coal samples achieved the required emissions reductions.

Based on the foregoing we conclude that (i) testing by the Research Center for qualified emission reductions as set forth in its Test Reports satisfies the requirements of Notice 2010-54. Taxpayer may rely on the pilot-scale testing conducted at the Research Center to satisfy the qualified emission reduction test of § 45(c)(7)(B) regardless of subsequent normal fluctuations in operating conditions and emissions at the Power Plant, and (ii) pursuant to section 6.04(2) of Notice 2010-54, the redetermination requirement of section 6.04 of Notice 2010-54 may be satisfied by laboratory analysis establishing that the sulfur (S) and mercury (Hg) content of both the feedstock coal and the refined coal, on average, do not vary by more than ten percent (10%) from the sulfur (S) and mercury (Hg) content of the feedstock coal and the refined coal used in the most recent determination that meets the requirements of section 6.03 of Notice 2010-54.

With respect to the fifth ruling request, § 45(d)(8) provides that a refined coal facility must be placed in service within certain timeframes. Section 3.07 of Notice 2010-54 provides that the year in which property is placed in service is determined under the principles of Treasury Regulation § 1.46-3(d); *i.e.*, when the property is placed in a condition or state of readiness and availability for a specifically assigned function. The placed-in-service language in § 45(d)(8) focuses on the facility, and does not, by its terms, require the facility to have been placed in service by the entity that owns and operates the facility (and claims the credit for such production) at a later date. The change in ownership of the Facility subsequent to its placed-in-service date will not affect the placed-in-service date of the Facility for purposes of § 45.

This ruling expresses no opinion about any issue not specifically addressed in this ruling letter, including (1) whether any person has sold refined coal to an unrelated person, or (2) when the facility was actually “placed in service.” In particular, we express or imply no opinion that the Taxpayer has sufficient risks and rewards of the production activity to qualify as the producer of the refined coal. The Service may challenge an attempt to transfer the credit to a taxpayer who does not qualify as a producer, including transfers structured as partnerships, sales or leases that do not also transfer sufficient risks and rewards of the production activity.

In accordance with the Power of Attorney on file with this office, we are sending a copy of this letter to your authorized representative. A copy of this ruling must be attached to any income tax return to which it is relevant. Alternatively, taxpayers filing their returns electronically may satisfy this requirement by attaching a statement to their return that provides the date and control number of the letter ruling.

This ruling is directed only to the Taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. We are sending a copy of this letter ruling to the Industry Director.

Sincerely,

Peter C. Friedman  
Senior Technician Reviewer, Branch 6  
Office of Associate Chief Counsel  
(Passthroughs & Special Industries)

cc: